# INTERNATIONAL SEARCH REPORT

International application No. PCT/KR2005/003486

# A. CLASSIFICATION OF SUBJECT MATTER

C30B 25/00(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

# B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) H01L 21/312, H01L 21/00, H01L 21/20, C32C 16/26, C30B 7/00, C30B 25/00, B29C 35/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean Utility models and applications for Utility models since 1975

Japanese Utility models and application for Utility models since 1975

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used) eKIPASS(KPA, PAJ, FPD, USPATFULL) in KIPO

#### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No	
Α	US 5334283 (UNIV. NORTH CAROLINA) 02 August 1994	1-7	
X	see column 2 line 23 - column 5 line 59, claims	8,9	
Α	US 5486263 (AT&T BELL LABORATORIES) 23 January 1996 see column 2 line 1 - column 3 line 8, claims	1-9	
Α	US 2002/168836 A1 (NOGUCHI HITOSHI) 14 November 2002 sec [004] - [0028]	1-9	
Α	US 6068883 (MATUSHITA ELECTRIC INDUSTRIAL CO., LTD. ) 30 May 2000 see column 1 line 15 - column 2 line 62	1-9	
Α	US 2004/0177803 A1 (Geoffrey Alan Scarsbrook et al.) 16 September 2004 see [0003] - [0026]	1-9	
A .	US 5478513 (GEN ELECTRIC) 26 December 1995 see column 1 line 19 - column 2 line 40	1-9	

See patent family annex.

- \* Special categories of cited documents:
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

03 MARCH 2006 (03.03.2006)

Date of mailing of the international search report

03 MARCH 2006 (03.03.2006)

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2005/003486

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US5334283A	02.08.1994	AU5088193A	29.03.1994
		CA2143223A1	17.03.1994
		EP0657065A1	14.06.1995
		JP8500705T	23.01.1996
	•	US5334283A	02.08.199
		W09406152A1	17.03,199
US5486263A	23.01.1996	DE69310040T2	07.08.1997
		EP00581438A2	02.02.1994
		EP00581438B1	23.04.1997
		EP0581438A2	02.02.1994
		EP581438A3	11.05.1994
		EP581438B1	23.04.1997
		IL 106 189A0	20, 10, 1993
		IL 106 189A1	18.06.1996
		JP06092792	05.04.1994
		JP2609047B2	14.05.1997
	•	JP6092792A2	05.04.1994
		KR1019940002232	16.02.1994
		KR1019940005829	22.03.1994
		US05486263	23.01.1996
US2002168836A1	14.11.2002	JP14338387	27.11.2002
	•	JP2002338387A2	27.11.2002
		KR1020020086222	18, 11, 2002
		TW594853B	21.06.2004
		US20020168836A1	14.11.2002
		US2002168836AA	14.11.2002
		US6875708BB	05.04.2005
US6068883A	30.05.2000	EP00844319A1	27.05.1998
		EP0844319A1	27.05.1998
		EP844319A1	27.05.1998
		EP844319A4	05.09.2001
		JP10081589A2	31.03.1998
		JP 1008 1589	31.03.1998
		KR1019990036370	25.05.1999
	•	KR262259B1	15.07.2000
		US06068883	30.05.2000

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No. PCT/KR2005/003486

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US20040177803A1	16.09.2004	AU2003263447A1 AU2003263447AA CA2496710AA CA2496710A1 CN1681976A EP01543181A1 EP1543181A1 GB200221949A0 GB200508004A0	08.04.2004 08.04.2004 01.04.2004 01.04.2004 12.10.2005 22.06.2005 22.06.2005 30.10.2002 25.05.2005
		GB2409468A1 KR1020050067394 US2004177803A1 US2004177803AA W02004027123A1	29.06.2005 01.07.2005 16.09.2004 16.09.2004 01.04.2004
US5478513A	26.12.1995	AT135751E CA2082711AA DE69209247T2 EP00546752A1 EP0546752B1 EP546752A1 EP546752B1 JP05270983 JP5270983A2 US5478513A ZA9209238A	15.04.1996 14.06.1993 02.10.1996 16.06.1993 20.03.1996 16.06.1993 16.06.1993 20.03.1996 19.10.1993 19.10.1993 26.12.1995 11.08.1993